



#2

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/509,094

Source:

PCT

Date Processed by STIC:

10/5/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

BEST AVAILABLE COPY

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

10/509,094

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 Misaligned Amino Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing

6 PatentIn 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 Skipped Sequences (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO: X. (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading!)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: X. (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES" response to include the skipped sequences

8 Skipped Sequences (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 <210> sequence id number
 <400> sequence id number
 000

9 Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 Invalid <213> Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or Artificial Sequence.

11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 PatentIn 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING

DATE: 10/05/2004

PATENT APPLICATION: US/10/509,094

TIME: 10:38:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

3 <110> APPLICANT: Innogenetics N.V.
 5 <120> TITLE OF INVENTION: HBV DRUG RESISTANCE AND DRUG RESISTANCE DETECTION METHODS
 7 <130> FILE REFERENCE: 133 PCT
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/509,094
 C--> 9 <141> CURRENT FILING DATE: 2004-09-28
 9 <160> NUMBER OF SEQ ID NOS: 16
 11 <170> SOFTWARE: PatentIn version 3.1
 13 <210> SEQ ID NO: 1
 14 <211> LENGTH: 160
 15 <212> TYPE: PRT
 16 <213> ORGANISM: hepatitis B virus
 18 <400> SEQUENCE: 1
 21 Ala Met Pro His Leu Leu Val Gly Ser Ser Gly Leu Ser Arg Tyr Val
 22 1 5 10 15
 25 Ala Arg Leu Ser Ser Asn Ser Arg Ile Phe Asn Tyr Gln His Gly Thr
 26 20 25 30
 29 Met Gln Asn Leu His Asp Ser Cys Ser Arg Asn Leu Tyr Val Ser Leu
 30 35 40 45
 33 Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His
 34 50 55 60
 37 Pro Ile Ile Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser
 38 65 70 75 80
 41 Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg
 42 85 90 95
 45 Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Met Asp Asp Val Val
 46 100 105 110
 49 Leu Gly Ala Lys Ser Val Gln His Leu Glu Ser Leu Phe Thr Ala Val
 50 115 120 125
 53 Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr
 54 130 135 140
 57 Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys
 58 145 150 155 160
 61 <210> SEQ ID NO: 2
 62 <211> LENGTH: 137
 63 <212> TYPE: PRT
 64 <213> ORGANISM: hepatitis B virus
 66 <400> SEQUENCE: 2
 68 Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
 69 1 5 10 15
 72 Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro
 73 20 25 30
 76 Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
 77 35 40 45

Does Not Comply
Corrected Diskette Needed

(pg. 3-5)

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Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

```

80 Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
81      50                      55                      60
84 Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
85 65                      70                      75                      80
88 Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
89                      85                      90                      95
92 Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp
93                      100                      105                      110
96 Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
97                      115                      120                      125
100 Ile Phe Phe Cys Leu Trp Val Tyr Ile
101      130                      135
104 <210> SEQ ID NO: 3
105 <211> LENGTH: 480
106 <212> TYPE: DNA
107 <213> ORGANISM: hepatitis B virus
109 <400> SEQUENCE: 3
111 gctatgcctc atcttcttgt tggttcttct ggactatcaa ggtatgttgc ccgtttgtcc      60
113 tctaattcca ggatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
115 tcaaggaacc tctatgtatc cctcctgttg ctgtacaaa ccttcggacg gaaattgcac      180
117 ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
119 ccgtttctcc tggtctcagtt tactagtgcc atttgttcag tggttcgtag ggctttcccc      300
121 cactgttttg ctttcagtta tatggatgat gtggtattgg gggccaagtc tgtacagcat      360
123 cttgagtccc tttttaccgc tgttaccaat tttcttctgt ctttgggtat acatttaaac      420
125 cctaacaaaa caaaaagatg gggttactct ttacatttca tgggctatgt cattggatgt      480
128 <210> SEQ ID NO: 4
129 <211> LENGTH: 160
130 <212> TYPE: PRT
131 <213> ORGANISM: hepatitis B virus
133 <400> SEQUENCE: 4
135 Ala Met Pro His Leu Leu Val Gly Ser Ser Gly Leu Ser Arg Tyr Val
136 1      5                      10                      15
139 Ala Arg Leu Ser Ser Asn Ser Arg Ile Phe Asn Tyr Gln His Gly Thr
140      20                      25                      30
143 Met Gln Asn Leu His Asp Ser Cys Ser Arg Asn Leu Tyr Val Ser Leu
144      35                      40                      45
147 Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His
148      50                      55                      60
151 Pro Ile Ile Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser
152 65                      70                      75                      80
155 Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg
156      85                      90                      95
159 Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Ser Asp Asp Val Val
160      100                      105                      110
163 Leu Gly Ala Lys Ser Val Gln His Leu Glu Ser Leu Phe Thr Ala Val
164      115                      120                      125
167 Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr
168      130                      135                      140
171 Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys

```

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DATE: 10/05/2004

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TIME: 10:38:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

```

172 145          150          155          160
175 <210> SEQ ID NO: 5
176 <211> LENGTH: 137
177 <212> TYPE: PRT
178 <213> ORGANISM: hepatitis B virus
180 <400> SEQUENCE: 5
182 Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
183 1      5      10      15
186 Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro
187      20      25      30
190 Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
191      35      40      45
194 Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
195      50      55      60
198 Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
199 65      70      75      80
202 Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
203      85      90      95
206 Leu Ser Pro Thr Val Trp Leu Ser Val Ile Val Met Met Trp Tyr Trp
207      100     105     110
210 Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
211      115     120     125
214 Ile Phe Phe Cys Leu Trp Val Tyr Ile
215      130     135
218 <210> SEQ ID NO: 6
219 <211> LENGTH: 480
220 <212> TYPE: DNA
221 <213> ORGANISM: hepatitis B virus
223 <400> SEQUENCE: 6
225 gctatgcctc atcttcttgt tggttcttct ggactatcaa ggtatgttgc ccgtttgtcc      60
227 tctaattcca ggatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
229 tcaaggaacc tctatgtatc cctcctgttg ctgtacacaaa ccttcggacg gaaattgcac      180
231 ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
233 ccgttttctca tggctcagtt tactagtgcc atttggttcag tggttcgtag ggctttcccc      300
235 cactgttttg ctttcagtta tagtgatgat gtggtatttg gggccaagtc tgtacagcat      360
237 cttgagtccc tttttaccgc tgttaccaat tttcttttgt ctttggttat acatttaaac      420
239 cctaacaaaa caaaaagatg gggttactct ttacatttca tggggtatgt cattggatgt      480
242 <210> SEQ ID NO: 7
243 <211> LENGTH: 31
244 <212> TYPE: DNA
245 <213> ORGANISM: synthetic probe or primer
247 <400> SEQUENCE: 7
249 cacctgcagc ctcattttgt gggtcaccat a
252 <210> SEQ ID NO: 8
253 <211> LENGTH: 35
254 <212> TYPE: DNA
255 <213> ORGANISM: synthetic probe or primer
257 <400> SEQUENCE: 8
259 cataagcttc acaattcgtt gacatacttt ccaat

```

INVALID
 <213> Response
 in section 223.

INVALID
 <213> response.

MANDATORY, <213> responses has to be
 either artificial/UNKNOWN or Genus/
 Species. pls see item #10 on
 error summary sheet, 10/5/04

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/509,094

DATE: 10/05/2004

TIME: 10:38:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

262 <210> SEQ ID NO: 9
 263 <211> LENGTH: 31
 264 <212> TYPE: DNA
 265 <213> ORGANISM: synthetic probe or primer
 267 <400> SEQUENCE: 9
 269 gtgctgcagt ttgtgggtca ccatattctt g
 272 <210> SEQ ID NO: 10
 273 <211> LENGTH: 32
 274 <212> TYPE: DNA
 275 <213> ORGANISM: synthetic probe or primer
 277 <400> SEQUENCE: 10
 279 gacaagcttt tgacatactt tccaatcaat ag
 282 <210> SEQ ID NO: 11
 283 <211> LENGTH: 12
 284 <212> TYPE: PRT
 285 <213> ORGANISM: Tag 100 epitope
 287 <400> SEQUENCE: 11
 289 Glu Glu Thr Ala Arg Phe Gln Pro Gly Tyr Arg Ser
 290 1 5 10
 293 <210> SEQ ID NO: 12
 294 <211> LENGTH: 10
 295 <212> TYPE: PRT
 296 <213> ORGANISM: c-myc epitope
 298 <400> SEQUENCE: 12
 300 Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 301 1 5 10
 304 <210> SEQ ID NO: 13
 305 <211> LENGTH: 7
 306 <212> TYPE: PRT
 307 <213> ORGANISM: FLAG-epitope
 309 <400> SEQUENCE: 13
 311 Asp Tyr Lys Asp Asp Asp Lys
 312 1 5
 315 <210> SEQ ID NO: 14
 316 <211> LENGTH: 9
 317 <212> TYPE: PRT
 318 <213> ORGANISM: HA epitope
 320 <400> SEQUENCE: 14
 322 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 323 1 5
 326 <210> SEQ ID NO: 15
 327 <211> LENGTH: 12
 328 <212> TYPE: PRT
 329 <213> ORGANISM: protein C epitope
 331 <400> SEQUENCE: 15
 333 Glu Asp Gln Val Asp Pro Arg Leu Ile Asp Gly Lys
 334 1 5 10
 337 <210> SEQ ID NO: 16
 338 <211> LENGTH: 11

same error, see item #
 10 on error summary
 sheet.

32

same error

same error

same error

same error

same error

↑ The above responses can be
 inserted into section <223>.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/509,094

DATE: 10/05/2004

TIME: 10:38:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

339 <212> TYPE: PRT

340 <213> ORGANISM: VSV epitope

342 <400> SEQUENCE: 16

344 Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys

345 1

5

10

same error

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/509,094

DATE: 10/05/2004

TIME: 10:38:20

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\10052004\J509094.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date